

Today, just 13 percent of children ages 5 to 14 walk and bicycle to and from school—a dramatic drop from 1969, when nearly 50 percent of children walked to school. As a result, children don't get enough physical activity, school districts and families spend billions on transportation, and the volume of vehicles around schools creates traffic congestion, air pollution and endangers children. Safe Routes to School initiatives, funded by federal and sometimes state and local money, make it safer for children to walk and bicycle to and from school, using programs and street infrastructure to protect children from traffic collisions and community violence.

The availability of funding for Safe Routes to School programs and infrastructure has galvanized communities to prioritize safety improvements around schools, resulting in improvements for traffic congestion, busing costs and physical activity. As the fastest-growing racial group in the U.S., Asian Americans, Native Hawaiians, and Pacific Islanders have a key stake in the transformation of American streets. These communities are pioneering innovative, multilingual approaches to safe streets and healthier communities, with equity and intergenerational cooperation at the heart of the work.

Improving Safety and Preventing Tragedy

Communities want streets where children, families, and older adults are safe. Safe Routes to School is a tool to help communities protect children and prevent tragedies. Infrastructure installed with Safe Routes to School funding is proven to reduce deaths and injuries for people walking and bicycling.

- In 2009, more than 23,000 children (ages 5 to 15) were injured by cars while walking or bicycling 15 percent of all children's traffic injuries.²
- Safe Routes to School interventions improve safety for students, with one study showing a 44 percent annual decrease in child pedestrian injuries during school travel hours due to Safe Routes to School infrastructure improvements.³
- Sidewalks, safe crosswalks, and traffic calming features are significantly more common in high income areas than low or moderate income communities. These street scale improvements are crucial in making walking or biking a safe option over driving.
- Adding a sidewalk cuts in half the risk that someone walking will be struck by a car.⁴



Case Study: Hawaii's Opportunity for Active Living Advancement (HO'ÄLA): Addressing Childhood Obesity through Safe Routes to School

Concerned about high rates of obesity among children in Hawaii, a community partnership came together in 2011. Through a \$150,000 grant, the partnership initiated the Opportunity for Active Living Advancement (HO'ÄLA), a study to determine whether there were changes in the levels of walking and bicycling to school caused by new statewide policies, locally-based Safe Routes to School (SRTS) programs, and bicycle and pedestrian planning initiatives. Thirteen schools volunteered to participate, with the majority of students being Asian, Native Hawaiian, and Pacific Islander in underserved communities. Using parent surveys, student travel tallies, traffic counts and safety observations, participants assessed the walking and biking environment around each school. The study also tracked Complete Streets and Safe Routes to School policy implementation. With the influence of HO'ÄLA staff members, the communities in question improved the walking and bicycling environment in a number of ways. Two schools received Safe Routes to School project funding from the state, schools were identified as key areas in the pedestrian master plan, and one school was slated for a bike plan priority project.²⁰



Addressing the Impact of the Trip to School on Traffic Congestion

Safe Routes to School helps parents feel safe allowing children walk and bicycle to school. Changing school commute habits can reduce congestion, pollution, and unnecessary traffic around school facilities.

- Driving to school represents 10-14 percent of traffic on the road during the morning commute. In 2009, U.S. families drove 30 billion miles to take their children to and from school, at a cost of \$5 billion in fuel.⁵
- 43 percent of children who live less than a mile from school are driven to school, even though this is an easy distance for walking and bicycling if conditions are safe.

Fair Is Fair: Directing Funds Where They Are Needed Most

Lower-income communities and rural towns have particular need of Safe Routes to School improvements, due to the lack of investment in safe infrastructure, high-volume roads, and the large percentage of residents unable to afford a car. Because these communities often lack the tax base and financial resources to invest in sidewalks and crosswalks, Safe Routes to School funds are key. Asian American, Native Hawaiian, and Pacific Islander communities need policymakers to prioritize their neighborhoods when deciding where to place life-saving improvements like sidewalks, lighting and crosswalks.

- 13.2 percent of Asian Pacific Islander families live in poverty.
 The combination of fewer sidewalks and crosswalks plus more high-speed traffic in low-income communities creates a higher risk of children being injured or killed by cars when walking.⁷
- Small towns often lack safe walking conditions, like sidewalks, lighting, and crosswalks, even though 1.6 million rural households do not have access to cars.⁸ In rural areas, drivers often do not slow down adequately when passing through towns, creating hazards for people walking and bicycling.⁹
- Of schools that have received Safe Routes to School funds, 41 percent of are in small towns or rural areas and 23 percent are low-income schools.¹⁰

Case Study: Alpine Elementary School

Alpine Elementary School in Alpine, UT, home of a Chinese Dual Immersion Program, received \$71,500 in Safe Routes to School funding. Students and the community benefited when these funds were used to add a safe walking path and to implement bicycling and walking education and encouragement. Students walked 28,000 miles and got 500,000 minutes of physical activity in just six months. Over a three year period, the number of students regularly walking and bicycling jumped from 32 to 50 percent.





Increasing Physical Activity through Changes in the Built Environment

The high rates of childhood obesity in America affect health care costs, academic achievement and future work productivity. Communities that are more walkable and bikeable have higher physical activity rates.

- Childhood obesity has more than quadrupled among children ages 6 to 11, increasing from 4 percent in 1969 to 19.6 percent in 2007. 23 million children and teens—nearly one-third of all young people in the U.S.—are overweight or obese.¹¹
- Today, one-quarter of health care costs are attributable to obesity, 12 with direct costs for childhood obesity as high as \$14 billion annually. 13
- Asian Americans tend to develop chronic diseases at a lower body mass index (BMI) compared with other races and ethnicities.¹⁴
- Overweight and obese children, on average, have lower GPAs, more school absences, and more disciplinary referrals.¹⁵
- Studies show that children who walk and bicycle to school are more physically active, ¹⁶ have lower body mass index scores, ¹⁷ lower obesity levels, ¹⁸ and are more likely to meet physical activity guidelines ¹⁹ than students who are driven or bused to school.

Safe Routes to School programs give communities and parents safe, healthy and economical transportation solutions, which are particularly critical in challenging economic times.

Notes

- 1. McDonald, Noreen, Austin Brown, Lauren Marchetti, and Margo Pedroso. "U.S. School Travel 2009: An Assessment of Trends." American Journal of Preventive Medicine 41 (August 2011): 2, 146-151.
- 2. "Pedestrians: 2009 Data" and "Bicyclists and Other Cyclists: 2009 Data" Washington, DC: National Highway Traffic Safety Administration, 2009.
- 3. Charles DiMaggio and Guohua Li, "Effectiveness of a Safe Routes to School Program in Preventing School-Aged Pedestrian Injury," Pediatrics, 2013, doi: 10.1542/peds.2012-2182.
- 4. Knoblauch, R, B Tustin, S Smith, and M Pietrucha. "Investigation



Case Study: Bike to China

In 2013, the Asian Pacific Islander Obesity Prevention Alliance (APIOPA) launched Bike to China, a program to promote physical activity among Asian Pacific Islander youth in Los Angeles. High school students from Chinatown biked 5,000 miles in one summer, roughly the distance from Los Angeles to China, while studying how the built environment affects physical activity. The students led public officials, including State Assemblyman Jimmy Gomez, on tours of their communities as they gave recommendations for safer routes for Chinatown residents to walk and bike. Students reached their goal in August 2013, and in 2014, APIOPA added a Bike to Japan program with Little Tokyo high school students.

Looking beyond their youth population, APIOPA also conducted multilingual surveys, finding that Chinatown has one of the highest populations of elderly residents in greater Los Angeles, with almost 20 percent of Chinatown residents being older than 60 years old. Of those surveyed, the majority of older adults used walking as their primary mode of transportation, emphasizing the importance of making streets in Chinatown, and all of Los Angeles, safe for walking by residents of all ages.



of Exposure-Based Pedestrian Accident Areas: Crosswalks, Sidewalks, Local Streets, and Major Arterials." Washington DC: US Department of Transportation, 1987.

- 5. McDonald, Noreen, Austin Brown, Lauren Marchetti, and Margo Pedroso. "U.S. School Travel 2009: An Assessment of Trends." American Journal of Preventive Medicine 41 (August 2011): 2, 146-151.
- 6. Macpherson, Alison, Ian Roberts and Barry Pless. "Children's exposure to traffic and pedestrian injuries." American Journal of Public Health 88 (December 1998).
- 7. 12
- 8. Dabson, Brian, Thomas G. Johnson, and Charles W. Fluharty. A RUPRI Policy Brief: Rethinking Federal Investments in Rural Transportation: Rural Considerations Regarding Reauthorization of the Surface Transportation Act. Columbia, MO: Rural Policy Research Institute, April 2011.
- 9. Hallmark, Shauna, Eric Fitzsimmons, David Plazak, Tom Michael Welch, and Eric Petersen. "Use of Physical Devices for Calming Traffic Along Major Roads through Small Rural Communities in Iowa." Transportation Research Record: Journal of the Transportation Research Board 2078 (January 16, 2009): 100-107.
- 10. National Center for Safe Routes to School. Federal Safe Routes to School Program Progress Report. Raleigh, NC: August 2011.
- 11. National Center for Safe Routes to School. Federal Safe Routes to School Program Progress Report. Raleigh, NC: August 2011.
- 12. Ogden, Cynthia and Margaret Carroll. "Prevalence of Obesity among Children and Adolescents: United States, Trends 1963-1965 through 2007-2008." Atlanta: Centers for Disease Control and Prevention. National Center for Health Statistics, June 2010.

- 13. Trasande L and S Chatterjee. "The impact of obesity on health service utilization and costs in childhood." Obesity 17 (2009): 1749–54.
- 14. Marder, William and Stella Chang. "Childhood Obesity: Costs, Treatment Patterns, Disparities in Care and Prevalent Medical Conditions. New York: Thomson Medstat Research Brief, 2006. Accessed June 3, 2011, www.medstat.com/pdfs/childhood_obesity.pdf.
- 15. Nguyen TT, Adair LS, Suchindran CM, He K, Popkin BM. The association between body mass index and hypertension is different between East and Southeast Asians. Am J Clin Nutr. 2009 Jun;89(6):1905-12. Epub 2009 Apr 15.
- 16. Shore, Stuart, Michael Sachs, Jeffrey Lidicker, Stephanie Brett, Adam Wright and Joseph Libonati. "Decreased scholastic achievement in overweight middle school students." Obesity 16 (2008): 7, 1535-1538.
- 17. Cooper AR, LB Andersen, N Wedderkopp, AS Page, and K Froberg. "Physical activity levels of children who walk, cycle or are driven to school." American Journal of Preventive Medicine 29 (2005): 3, 179-184.
- 18. Rosenberg DE, JF Sallis, TL Conway, KL Cain, and TL McDenzie. "Active transportation to school over 2 years in relation to weight status and physical activity." Obesity 14 (2006): 10, 1771-1776.
- 19. Sirard JR, WF Riner, KL McIver, and RR Pate. "Physical activity and active commuting to elementary school." Medicine and Science in Sports and Exercise 37 (2005): 12, 2062-2069.
- 20. Laura Dierenfield, B., D. A. Alexander, et al. (2011). "Hawaii's Opportunity for Active Living Advancement (HO 'ALA): Addressing Childhood Obesity through Safe Routes to School." HAWAII MEDICAL 70(7 Supplement 1):21.